CHAPTER 3 Cumulative Impacts

3.1 Regulatory Setting

CEQA defines cumulative impacts as "two or more individual effects which, when considered together are considerable," and suggests that cumulative impacts can result from individually minor but collectively significant projects being implemented over a period of time (State CEQA Guidelines, Section 15355). The State CEQA Guidelines suggest two possible methods for assessing potential cumulative effects: the list-based approach and the projections-based approach (CEQA Guidelines, Section 15130). The list-based approach, which considers a list of past, present, and reasonably foreseeable future projects producing related or cumulative impacts, is the approach that was utilized herein.

For the purposes of this analysis, cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of this Project. Table 3-1 summarizes the past, present and reasonably foreseeable Projects in the study area that were considered as part of this cumulative analysis.

The following analysis pertains to resource areas for which Project-related impacts would be either less than significant or less than significant with the implementation of mitigation measures. Aesthetics is the only resource area analyzed in this document for which impacts and mitigation measures have been identified; therefore, this is the only area for which a detailed, list-based approach to assessing cumulative impacts has been utilized. The potential for cumulative impacts in the other resource areas analyzed in this document is addressed below; but, as no impacts and mitigation measures have been identified in these areas, a detailed comparison of this project to the projects listed in Table 3-1 has not been done.

3.2 Traffic

The proposed Project would include construction of a new diagonal on-ramp and a new bridge over Washington Creek, which would allow for the widening of the on-ramps at East Washington Street and would increase traffic capacity. Additionally, the existing northbound on/off-ramps traffic signal at East Washington Street would be upgraded and lanes restriped to improve the traffic flow in the vicinity of East Washington Street and the on/off-ramps. As described in Section 2.2, the proposed Washington Street interchange improvements are expected to have a beneficial impact on traffic in the vicinity of the Project. Because no significant adverse impacts are expected to occur with Project implementation, the Project's contribution to cumulative traffic impacts would be less than significant.

3.3 Aesthetics

The primary effect that this Project and related Route 101 projects would have on aesthetics along the highway corridor would be the removal of trees along the highway. The present Project would result in the removal of approximately 780 trees, including approximately 592 mature redwood trees. The trees to be removed are outside of their biological range, do not provide optimum habitat, and do not support redwood populations; however, they are considered

Table 3-1 Past, Present, and Foreseeable Future Projects in the Study Area

Key	Project and Location	Project Type	Document Type	Project Status	Shared Resource Impact Areas
County of Sonoma					
1	Dutra Asphalt & Recycling Facility 3355 Petaluma Blvd. S.	Industrial	IS	Unknown	• Wetlands • Aesthetics • Water Quality
2	Haynie Fueling and Rhinehart Truck Stop 2645 & 2525 Petaluma Blvd. South	Commercial	MND	Unknown	• Aesthetics
3	Shamrock 210 & 222 Landing Way	Industrial	MND		• Wetlands
City of Petaluma					
4	Intersection widening and signalization project Adobe Rd/Corona Rd IS	Traffic Improvement	MND		• Wetlands • Aesthetics
5	Boulevard Apartments 945 Petaluma Boulevard North	Residential	MND	Completed Construction	• Water Quality
6	Deer Creek Plaza NW side of N. McDowell/Rainier Avenue Intersection	Commercial	IS		• Wetlands • Water Quality
7	Lafferty Ranch Park 3.5 miles from Petaluma	Recreation	EIR		• Wetlands • Water Quality •
8	Lomas Petaluma Subdivision Quarry Reclamation 1500 Petaluma Boulevard S.	Residential	MND		• Wetlands • Water Quality •
9	Magnolia Place Magnolia Avenue, near Cemetery	Residential	MND	Completed Construction	• Wetlands • Water Quality
10	Marina Office Building 785 Baywood Drive	Office	MND	Approved	• Wetlands • Water Quality
11	McDowell/East Washington	Traffic Improvement	MND		• Wetlands

Table 3-1 Past, Present, and Foreseeable Future Projects in the Study Area

Key	Project and Location	Project Type	Document Type	Project Status	Shared Resource Impact Areas
12	Petaluma Theater District First and Second Streets at C and D Streets	Residential & Commercial	MND	Under Construction	•
13	Recycled Water Pipeline Phase I Brown's Lane/Ely Road/Casa Grande Road	Utility	MND		• Wetlands • Water Quality
14	Redwood Technology Center		EIR		• Wetlands • Water Quality
15	Sola Business Park Cader Lane (between Lakeville Hwy and South McDowell)	Office	MND		• Water Quality
16	Technology Lane Commercial Center Technology Lane	Office	MND	Under Construction	• Wetlands • Water Quality
17	Sweed School 331 Keller Street				• Water Quality
18	Park Square Lakeville Highway and Casa Grande Road	Residential & Commercial	UNK	Under Construction	• Water Quality
19	Marin Sonoma Narrows 101 Widening	Transportation	EIR/EIS	Final environmental document being prepared	• Wetlands • Water Quality • Aesthetics •
20	Old Redwood to Rohnert Park Expressway HOV Project	Transportation	EIR/EA	Final environmental document being prepared	• Water Quality • Aesthetics
21	Rohnert Park to Wilfred Avenue HOV	Transportation	MND/EA		• Wetlands • Water Quality • Aesthetics

Table 3-1 Past, Present, and Foreseeable Future Projects in the Study Area

Key	Project and Location	Project Type	Document Type	Project Status	Shared Resource Impact Areas
22	Highway 12 to Steele Lane HOV	Transportation	EIR/EA		• Wetlands • Water Quality • Aesthetics
23	Steele Lane to Windsor River Road HOV	Transportation	EIR/EA		• Wetlands • Water Quality • Aesthetics

Notes:
MND = Mitigated Negative Declaration
EIR = Environmental Impact Report
EA = Environmental Assessment

aesthetic resources. In particular, the redwood trees to be removed as part of the proposed Project were planted in clusters along Route 101 to establish its character as the "Redwood Highway." Some replanting of trees would occur under the proposed Project, although the trees to be planted would be limited to specific areas within the Project footprint.

Multiple, related projects would result in impacts to redwood trees along the Route 101 corridor in the Project vicinity. The Marin-Sonoma Narrows Project would remove between 2,100 and 2,500 trees, including many mature redwoods. The Route 101-Route 12 to Steele Lane project would remove about 100 redwood trees; this Project would maximize replanting of redwood trees along Route 101 where possible without impairing sight distances or encroaching into clear recovery areas. The Route 101-Wilfred Avenue to Route 12 project removed about 200 redwood trees and will replace them along certain points of the straightaway segments of the project, at interchanges in the project area, and along straightaway segments of Route 101 south of the project boundaries. The Route 101-Steele Lane to Windsor Road project would remove about 390 redwood trees, which represents approximately 8 percent of the total within its project boundaries. The Canon Manor West Subdivision, located east and adjacent to the City of Rohnert Park in Sonoma County, would remove up to 15 redwood trees from the project area; this project would replace the removed redwood trees in approximately the same location. The Route 101-Railroad Park Expressway would remove a maximum of 1,060 mature redwood trees.

Because the proposed Project, along with other, similar projects in the vicinity, would result in the removal of a substantial number of redwood trees along the Route 101 corridor, the visual character of the highway would change. The loss of vegetation associated with the Project and with other projects in the vicinity would adversely affect the landscape character of the highway, including the aesthetics of the driving experience and the views from residences adjacent to the highway corridor. However, as discussed in Section 2.3, the trees to be removed as a result of this Project are in poor health, and as a result, their visual quality is relatively poor. Further, the Project would incorporate replacement planting including trees and other tall vegetation.

Additionally, other past or reasonably foreseeable Projects along Route 101 also would include replacement planting, which would reduce the severity of visual impacts along the highway corridor. The Marin Sonoma Narrows project, in particular, would replace the aesthetic value of trees through replacement plantings throughout its project limits, which include the entire area of the East Washington Street Interchange project.

Although the accumulated tree removal due to projects along the Route 101 corridor would result in adverse visual impacts within the Project and vicinity, the Project's would not contribute to a cumulatively-significant visual impact.

3.4 Air Quality

As described in Section 2.4 above, the Project would not result in any significant air quality impacts. The Project would meet microscale air quality requirements would, therefore, have no significant impact on air quality or cause exceedances of state or federal carbon monoxide standards. Further, because the Project would not result in increased traffic, it is not expected

to have adverse effects on PM_{10} levels or on Mobile Source Air Toxics. For these reasons, the Project would not result in a cumulatively considerable air quality impact.

3.5 Noise

The operational noise increase that would occur with Project implementation would be imperceptible to the human ear. Therefore, the Project would not make a significant long term contribution to cumulative noise levels in the Project area. Further, as proposed in Section 2.5, numerous sound control measures would be implemented during Project construction to reduce construction-related noise impacts. Insofar as temporary project related noise impacts would be minimized and the Project would not generate a long-term increase in Project-area noise levels associated with increases in traffic, the Project's contribution to cumulative noise impacts would be less than significant.

3.6 Biology

Impacts associated with the proposed tree removal will be minimized by scheduling tree removal activities outside of nesting season. Additionally, a Caltrans biologist will conduct a survey for nesting birds within 2 weeks prior to the beginning of construction, including the removal of any vegetation. If any nests are observed, all work in the area will cease, and CDFG will be contacted.

With implementation of impact minimization measures proposed in section 2.6, Project-related impacts to biological resources would be less than significant. Although other planned and ongoing projects within the Project area may result in significant impacts to wildlife or habitat, the proposed Project would result in a less than significant impact to biological resources and, therefore, its contribution to cumulative biological resource impacts would be less than significant.

3.7 Cultural Resources

Based on information collected during field surveys and documentary research, it is not anticipated that construction activities would encounter or disturb buried archaeological resources. Further, under the authority of FHWA, Caltrans determined that no historic properties would be affected by the Project. Implementation of Mitigation Measure 2.7-1 would reduce any potential impacts to buried, previously undocumented archaeological deposits to a less than significant level. Therefore, the Project's contribution to cumulative impacts to cultural resources in the Project vicinity would be less than significant.

3.8 Geology

The proposed Project would not result in cumulatively considerable geology impacts. Implementation of Project-specific measures outlined in Section 2.8 of this document would ensure that Project related geology impacts would be less than significant. Further, all design and construction related to this Project and to other projects in the vicinity will occur in accordance with the California Building Code, which requires that structures should be built to withstand a

7.0 magnitude earthquake, and with measures set forth by the California Division of Mines and Geology Guidelines for Evaluating and Mitigating Seismic Hazards.

3.9 Hydrology and Water Quality

The Project would result in an increase in wastewater discharge associated with an increase in impervious surfaces. According to the Caltrans NPDES permit and Construction General Permit, a variety of BMPs would be incorporated into the Project design and construction contract to reduce the discharge of pollutants during construction and over the life of the project to the maximum extent practicable. These BMPs fall into three categories: construction site BMPs that are temporary in nature, pollution prevention BMPs that would be incorporated into the project design, and permanent BMPs to treat long-term runoff and stormwater. Implementation of these measures, as described in Section 2.9 of this document, would minimize the Project-related impacts associated with wastewater discharge. Similar measures would be required with implementation of other projects in the area. Conformity by all projects with standard Caltrans BMPs, along with those measures required by the Regional Water Quality Control Board, this Project, in combination with other projects in the area, would result in a less than significant cumulative impact to hydrology and water quality.

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CHAPTER 5 List of Technical Studies and Bibliography

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Appendix A: Environmental Significance Checklist

This checklist identifies physical, biological, social, and economic factors that might be affected by the proposed Project. In many cases, background studies performed in connection with the Project indicate no impacts. A NO IMPACT answer in the right column reflects this determination. The words "significant" and "significance" used throughout the following checklist are related to CEQA, not NEPA, impacts.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS: Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	X
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	X	☐
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	X	☐	☐
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	☐	☐	☐	X
II. AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	X
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	X
III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district might be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	X
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☐	X
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	X
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	X
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	X
IV. BIOLOGICAL RESOURCES: Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☐	

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?			**X**	
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				**X**
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				**X**
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				**X**
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?				**X**
V. CULTURAL RESOURCES: Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?				
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?				
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X
d) Disturb any human remains, including those interred outside of formal cemeteries?				X
VI. GEOLOGY & SOILS: Would the project:				
Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				X
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				X
ii) Strong seismic ground shaking?				X
iii) Seismic-related ground failure, including liquefaction?				X
iv) Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?				X
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				X
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				X
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				X
VII. HAZARDS AND HAZARDOUS MATERIALS B Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				X
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving release of hazardous materials into the environment?				X
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the area?				X
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X
VIII. HYDROLOGY AND WATER QUALITY: Would the project:				
Violate any water quality standards or waste discharge requirements?			X	
Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?				X
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?				X
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?				X
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?			X	
f) Otherwise substantially degrade water quality?				X
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?				X
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X
j) Inundation by tsunami, or mudflow?				X
IX. LAND USE AND PLANNING: Would the project:				
Physically divide an established community?				X
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				X
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				X
X. MINERAL RESOURCES: Would the project:				

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	X
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	X
XI. NOISE: Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	X
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	X
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	X
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	X	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	X
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	X
XII. POPULATION AND HOUSING: Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	X
Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	X
XIII. PUBLIC SERVICES				
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	X
Police protection?	☐	☐	☐	X
Schools?	☐	☐	☐	X
Parks?	☐	☐	☐	X
Other public facilities?	☐	☐	☐	X
XIV. RECREATION:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	X
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	X
XV. TRANSPORTATION/TRAFFIC: Would the project:				
a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☐	X

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☐	X
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	X
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses?	☐	☐	☐	X
e) Result in inadequate emergency access?	☐	☐	☐	X
f) Result in inadequate parking capacity?	☐	☐	☐	X
g) Conflict with adopted policies, plans, or programs supporting alternative transportation?	☐	☐	☐	X
XVI. UTILITIES AND SERVICE SYSTEMS: Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	X
b) Result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	X
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	X
d) Have sufficient water supplies available to serve the project from existing or new entitlements and resources?	☐	☐	☐	X
e) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	X
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	X
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	X
XVII. MANDATORY FINDINGS OF SIGNIFICANCE:				
Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	X
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☐	X
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	X

Appendix B: Title VI Policy Statement

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY ARNOLD SCHWARZENEGGER, Governor

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Flex your power!
Be energy efficient!

January 14, 2005

TITLE VI
POLICY STATEMENT

The California Department of Transportation under Title VI of the Civil Rights Act of 1964 and related statutes, ensures that no person in the State of California shall, on the grounds of race, color, national origin, sex, disability, and age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

WILL KEMPTON
Director

"Caltrans improves mobility across California"

Appendix C: Proposed Protective Features Program and Aesthetics Mitigation Measures

Mitigation Measure 2.3-1: Replacement Landscaping in Southwest Quadrant between Proposed Bio-strip and Drainage Ditch

In the southwest quadrant of the Project, including southbound on-ramp, tall shrubs shall be planted to the maximum feasible extent within available planting areas between the proposed bio-strip and drainage ditch. New vines shall also be planted on chain link fence at the Project ROW line.

Mitigation Measure 2.3-2: Enhanced Redwood Planting on Interchange Embankments; Enhanced Redwood Planting in Offsite Locations

To partially offset impacts from the loss of trees in the Project corridor, additional new redwood plantings shall be installed on the earth embankments within the interchange, particularly near the mainline, consistent with required standard sight lines and other safety considerations. In addition, new redwood groupings shall be planted within the highway ROW in other portions of Route 101 where such plantings are feasible consistent with standard safety considerations including, but not limited to, portions of the highway ROW between Lynch Creek and Corona Road. In the long term, these redwood groupings would provide an enhanced City gateway statement at the interchange, restore a prominent instance of the redwood image that is emblematic of the County and Highway 101 corridor, and partially compensate for the loss of large-scale vegetation elsewhere in the Project segment.

Mitigation Measure 2.3-3: Northbound On-ramp Retaining Wall Mitigation Measures

Design measures shall be applied to northbound on-ramp retaining walls. Caltrans will coordinate development of these measures with the City of Petaluma. Such measures may include concrete surface texture and color treatments, context-sensitive design themes, or other measures to enhance corridor visual quality. Structure design measures shall be designed to maintain visual and design consistency within the Project limits, and an awareness of, and cohesion with, existing and proposed visual and design themes within the larger Marin and Sonoma County 101 corridor.

To offset potential impacts from intrusion of the new northbound on-ramp, landscaping between the ramp and roadway shall be installed to screen the west-facing retaining wall in the long term.

Mitigation Measure 2.3-4: Visual Screening of Shopping Center Loading Docks

On the east edge of the proposed northbound on-ramp, where tree removal exposes views of adjoining industrial uses to the highway, visually opaque barriers consisting of 3-foot (1-m) black-vinyl-clad chain link fence with brown slats shall be constructed atop the east ramp retaining wall to visually screen views of motorists into adjoining properties. Vines shall also be planted at the ROW line if feasible.

Mitigation Measure 2.3-5: Minimization of Tree Removal in Interchange and on East Washington Street

To enable preservation of poplars and other trees to the greatest feasible extent, the following measures are proposed:

- Clearing and grubbing within the interchange will be limited to excavation on embankment slope lines
- Existing vegetation outside of clearing and grubbing limits shall be protected from the contractor's operations, equipment, and materials storage
- Tree trimming by the contractor shall be limited to that required to provide a clear work area
- Prior to commencement of roadway construction, high-visibility protective fencing shall be placed around trees that are not subject to removal
- All trees to be removed shall be field-marked for removal by the contractor and verified/approved by the resident engineer prior to removal
- Wherever feasible, slope lines shall be adjusted to avoid tree removal.

Mitigation Measure 2.3-6: Replacement Planting Within Interchange

If preservation of poplars at East Washington Street proves infeasible, replacement planting shall be installed north of the wall on a 1-to-1 basis or greater, using 24-box plant material. Replacement planting with redwood is recommended to enhance the redwood image of the interchange, in coordination with measure VM-2.

Mitigation Measure 2.3-7: Preservation of Existing Trees, or Replacement Planting at Frontage of Apartments in Northeast Quadrant

North of the point where the proposed northbound on-ramp merges with the highway mainline, proposed road widening shall utilize a Type 60C concrete barrier to retain the widened road edge to preserve existing redwood trees at the frontage of adjoining apartments. If removal of any trees in this segment is unavoidable, they shall be replaced in-kind with 24-inch container plant material.

Mitigation Measure 2.3-8: Mitigation of Construction-related Light and Glare Impacts

All nighttime construction lighting shall be shielded and directed to eliminate all direct lighting outside of the construction area. Where substantial headlight glare could affect residences during construction, opaque screening shall be introduced to block such headlight glare for the duration of the construction period. If headlight glare could affect residents at apartments on a long-term basis, permanent screening shall be installed at the highway ROW to block headlight glare.